

SYLLABUS PLAN FOR THE SESSION 2020-21
SUBJECT - CHEMISTRY
CLASS – X

TEXTBOOK: Science and Technology (NCERT)
Total Weightage of Chemistry Portion (Theory) : 26/ 80 = 32.5 %

MONTH	UNIT/TOPIC	SUB TOPICS	LEARNING OBJECTIVES	PRACTICAL/ACTIVITY/PE DAGOGY	LEARNING OUTCOMES
March	Chemical Reactions and Equations (Weightage = 6 marks approx)	Characteristics of chemical reactions ,Types of chemical reactions , combination , decomposition , displacement , precipitation , neutralization .	To identify the characteristics of chemical reactions. To interpret changes into chemical reactions based on certain observations. To classify the chemical reactions into combination , decomposition , displacement , precipitation , neutralization .	Types of Reactions 1. Action of water on quick lime 2. Effect of heat on ferrous sulphate crystals	Students acquire the basic understanding of- Identification of chemical reactions on the basis of their characteristics. They get the skill and knowledge to classify the chemical reactions into : combination , decomposition , displacement , precipitation , neutralization .
April	Chemical Reactions and Equations Acids , Bases & Salts	Oxidation & reduction in terms of gain & loss of oxygen & Hydrogen General properties of acids & bases Characteristics of acids & bases,	To understand the phenomena of oxidation & reduction in terms of gain & loss of oxygen & Hydrogen To introduce general properties of acids & bases and characteristics of acids	❖ Types of Reactions ❖ Behavior of an iron nail kept in copper sulphate solution ❖ Reaction between sodium sulphate & barium chloride	They will be able to interpret and classify chemical changes into appropriate categories. They will be able to distinguish between oxidation and reduction. They will understand the concept of acids ,bases and salts. Enabling students to interpret



	(Weightage = 5 marks approx)	chemical reactions of acids & bases , examples & uses .	& bases. To enable them to write chemical reactions of acids & bases , examples & uses .		the properties of acids and bases into relevant chemical equations.
May	Acids , Bases & Salts	pH scale , pH in everyday life , salts , categories of salts . Important chemical compounds .	To introduce the concept of pH scale , pH in everyday life , salts , categories of salts . Important chemical compounds .	<ul style="list-style-type: none"> ❖ To study the properties of acids & bases taking examples of dil HCl & dil NaOH ❖ ART INTEGRATION: Enquiry Based Scientific Investigation and Recording the same in an artistic manner in form of a picture collage, Slide presentation or video. They will identify natural substances that can be used as Acid-Base Indicators and find out the colour or odour changes of those indicators in different mediums and present the same in an artistic form. They will also research and investigate the approximate pH of soil 	They will acquire the knowledge of pH and it's every day use and significance. They will understand the importance of various industrial processes which lead to formation of some very important chemical compounds.



				found in Arunachal Pradesh and record their findings.	
July	Metals & Non-Metals (Weightage = 5 marks approx)	Physical & chemical properties of metals & non-metals , reactivity series , Electrovalent bond.	To give them the knowledge of physical & chemical properties of metals & non-metals , reactivity series , To introduce the concept of electrovalent bond.	<ul style="list-style-type: none"> ❖ To observe the action of Zn , Fe , Cu , & Al metals on the following salt solutions . ❖ ZnSO₄ (aq) ❖ FeSO₄ (aq) ❖ CuSO₄ (aq) Al₂ (SO)₄ (aq) 	An elementary idea and introduction to metals and non-metals will be gained by them. Students acquire the knowledge of Bond formation. They are enabled to depict the Lewis dot structures of formation of electrovalent compounds.
August	Carbon Compounds (Weightage = 5 marks approx)	Unique nature of carbon , elementary idea of covalent bonding . Types of organic compounds , Functional groups , Nomenclature of organic compounds .	To impress upon them the unique nature of carbon , elementary idea of covalent bonding . To give them the knowledge of types of organic compounds , functional groups , Nomenclature of organic compounds .	SUBJECT ENRICHMENT ACTIVITY: Preparation of three dimensional models of methane, ethane . graphite, buckminsterfullerene using eco friendly materials depicting the correct orientation of bonds and bond angles.	Students get the understanding of basics of Organic chemistry. They understand the unique nature of carbon, the reasons which impart it such great significance in the living world . They are also enabled to draw and represent the Lewis dot structures of covalent compounds. Students get a glimpse of IUPAC nomenclature.
September	Periodic Classification of Elements	Early attempts at classification , Mendeleev,s periodic Table , Features as well as drawbacks of	To familiarize them with the early attempts at classification , To give them understanding of	Construction of Mendeleev's periodic table . Solving puzzles based on correlation of an element	They get the understanding that how atomic mass and then later atomic numbers played a role in classification of elements.



		his table . Modern periodic Law , modern periodic table.	Mendeleev,s periodic table , features as well as drawbacks of his table . To introduce the Modern periodic Law , modern periodic table.	to its properties with its position in the periodic table.	They acquire the concept and understand the significance of classification done by Mendeleev. They get the knowledge of basic lay out of Modern periodic table which is made by Neils Bohr. They are enabled to correlate properties of elements with its position in the periodic table.
October	Periodic Classification of Elements (Weightage = 5 marks approx)	. Gradation in properties along the group, across the period. Prediction of properties of elements on the basis of their position in the periodic table	Gradation in properties along the group, across the period. To enable them to Predict of properties of elements on the basis of their position in the periodic table	Concept map of Gradation in Properties.	They get the knowledge of basic lay out of Modern periodic table which is made by Neils Bohr. They are enabled to correlate properties of elements with its position in the periodic table.

